Water

Water

Overview

In California, rainfall runoff and snowmelt are captured in reservoirs to redistribute to urban and agricultural customers while meeting environmental requirements. About 75 percent of the State‘s water originates north of the Delta; and about 75 percent of the State's water needs occur south of the Delta.

Water bound for distribution through both the State Water Project (SWP) and the federal Central Valley Project (CVP) is taken from the south Delta. The CVP has contracts to divert 3.3 million acre feet per year, which supplies primarily agricultural land south of the Delta but also supplies urban areas and wildlife refuges. In addition, water to serve some Bay area urban users is taken from the Delta. The SWP has contracts to divert 4.2 million acre feet per year from the Delta, which supplies primarily urban uses but also supplies agricultural uses south of the Delta. On average, the projects export a total of about 5 million acre feet annually.

About two-thirds of the State's population gets at least a portion of its drinking water from the Delta. In addition, Delta farmers and irrigation districts have rights to irrigate with water taken directly from Delta sloughs and channels.

Because the Delta drains the Sacramento River and San Joaquin River watersheds, urban stormwater runoff and waste discharges from upstream and adjacent areas enter Delta waterways and cause water quality problems. Low-flow years generally carry higher concentrations of waste discharges and agricultural runoff and drainage than do wet years.

Some treated municipal and industrial wastewater, untreated urban storm water, and agricultural runoff and drainage enter the Delta directly. Other urban and agricultural discharges from upstream in the watershed enter the Delta along with the river flows. Seepage onto Delta islands from adjacent channels and drainage from the agricultural lands are released back to the Delta channels at hundreds of locations.

The Central Valley Regional Water Quality Control Board (Board) has identified the Delta as impaired by a number of pollutants, including some pesticides, low dissolved oxygen, electrical conductivity (salinity), and mercury (naturally occurring in the Cache Creek watershed, as well as a legacy of the large-scale hydraulic mining of the Sierra Nevada in the late 1800s). Designation as an impaired water body by the Board, relevant to certain water quality criteria or other stressors, is variable depending on portions of the watershed within the Delta. Delta fish have elevated levels of methylmercury, which poses a risk to humans and wildlife that eat the fish on a regular basis. As of 2009, the Board has adopted a threshold called a total maximum daily load (TMDL) for dissolved oxygen and is developing a TMDL for methylmercury in the Delta.

The daily tidal cycles and the San Joaquin River contribute most of the salinity to the Delta. During periods of high Delta inflows, salinity is low; during periods of low Delta inflows, the salinity level rises. Salinity in the Delta is managed by a mix of releases from upstream reservoirs, Cross Channel Gate operations, Delta outflow, and exports from the Delta. The Delta

is governed by water quality standards for municipal and industrial uses, agricultural uses, and fish and wildlife, all of which are currently under review by the State Water Resources Control Board. The combination of organic matter (decaying vegetation), bromide in the seawater, and disinfectants used in water treatment plants produce disinfection byproducts that may pose heath risks.

The State Water Resources Control Board and the Regional Boards designate beneficial uses of the State‘s waters. In the Delta, beneficial uses include: municipal and domestic supply; agriculture; industry; groundwater recharge; navigation; recreation; wildlife habitat; fish migration and spawning; and preservation of rare and endangered species.

Goals

Protect and enhance long-term water quality in the Delta for agriculture, municipal, industrial, water-contact recreation, and fish and wildlife habitat uses, as well as all other beneficial uses.

Policies

P-1.
State, federal and local agencies shall be strongly encouraged to preserve and protect the water quality of the Delta both for in-stream purposes and for human use and consumption.

P-2.
Ensure that Delta water rights and water contracts are respected and protected, including area of origin water rights and riparian water rights.